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MEMORANDUM REGARDING POSSIBLE PSYCHIATRIC DEVELOPMENTS

BY

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Two things seem perfectly reasonable lines of expenditure for the purpose of improving psychiatry.

1. Some departure from the new policy and, in suitable places giving aid in developing good teaching of psychiatry. Medical students still come out of most schools with inadequate understanding of the whole matter. Should this be done it seems desirable to do it in those places where facilities and the spirit of interest permit doing it not simply as a separate subject given in an institution for those who are more or less definitely abnormal mentally, but where it can also be done in close liaison with the medical and pediatric clinics. This seems quite important because, traditionally, psychiatry has been distinctly separated from general medical interests and thought to such degree that, to very many medical men, it seems a wholly distinct thing with which they have little relation. It is closely comparable in this way to public health and it would be very advantageous in both subjects to have doctors in general feel close relations and responsibilities. In psychiatry the borderline cases and the early stages of actual psychiatric disorders fall, all told, chiefly into the hands of the medical practitioner and the pediatricist.

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2. It appears highly important to develop real scientific studies of psychiatric problems. To be thoroughly effective this would mean establishing, in a fairly large way, a very few places at first - later perhaps more - where there would be forcible laboratories or institutes prepared to study such matters related to psychiatry as are subject to attack by the methods of more or less exact science.

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A comparison with the progress of general medicine in the last thirty to fifty years seems illuminating in relation to this point. There is a fairly close

analogy between psychiatry almost everywhere now and general medicine (as well as pediatrics, neurology, surgery, and some other clinical subjects) about thirty years ago. General medicine then used almost solely the methods of observation (including in this physical examination by the older methods), experience and judgment (or speculation). More precise and measurable methods were applicable then to extraordinarily few things, as we look back upon it. Diagnosis and treatment in many things that are now fairly exact were very uncertain and often faulty. This is true of a host of important diseases. When I entered medicine the diagnosis of even typhoid, tuberculosis, and diphtheria was a matter of opinion rather than exact diagnosis. The nature and importance of cardiac irregularity, and some other cardiac diseases, were very obscure; gastric and duodenal ulcers were recognised only in very obvious cases. Blood diseases were, as a rule, not recognised at all; blood counting even was not in use; the x-ray was unknown; bacteriological methods were in their infancy and scarcely used in diagnosis. Many other things now essential in daily work were not yet devised. The present knowledge and use of serums and vaccines did not exist. Medicine then and today are utterly different. The general extension of search for exact knowledge has altered all this. Gradually precise information has been acquired to such an extent that many things are exactly known. The atmosphere of work has become one of demand for exact knowledge and exact methods of thinking. Fairly definite reasons for the change may be seen by anyone. It was due to the extension of the methods of pathology and the introduction into the clinic of such other forms of scientific study (physiology, biochemistry, bacteriology, etc.) as were available for use in the problems to be studied. Speculative methods became suspect and unacceptable.

The most important determining cause of this change was, perhaps, the fact that for years great numbers of young men had gone from this country to work in Europe, especially in Germany and Austria, and in those countries the more modern methods of thought and work had for some time prevailed in the clinics. The oncoming generation of students in America was a new breed and was prepared for the change, and it rapidly became the general viewpoint. Locally, in this country, the most immediate determining cause was perhaps the development of the Medical Clinic at Johns Hopkins, which was planned and conducted with this viewpoint. With the prestige it rapidly acquired, the large number of men it trained as students and advanced workers, and the large numbers of visitors to that distinguished place, it acted as a powerful example elsewhere. It sent many men to teach elsewhere and those visiting there took the point of view that prevailed home with them.

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In most places psychiatry now is dominated by elusive and inexact methods of study and by speculative thought. Any efforts to employ the more precise methods that are available have been slight and sporadic. Often they have not been used at all. It is, of course, more difficult to use them in psychiatry than in the more definitely physical aspects of medicine, but there has been little employment of the methods that are open to use, in psychiatry itself, and there has been little change in real knowledge. Such alterations in thought as have occurred have been largely due to the work done by the physiologists, particularly Pavlov, Cannon and Sherrington. Furthermore, so wide a field is involved, and such numerous

and diverse factors are considered in the common conception of psychiatric investigation, that it is difficult to conceive of any great success coming from such a line of attack. Medicine worked through its most hazy and uninformed stage, as most other scientific lines of work have done, by adding bit by bit fragments of knowledge which ultimately could be put together to make an important whole, in one case after another. Only rarely was a problem solved as a whole and at one time and then always when before that a background of exact knowledge applicable to the problem had been accumulated in disconnected fragments. The tendency still, with a large proportion of workers, in psychiatry is to attack the whole in all its bearings and to try to work in that way towards precise knowledge. The same criticism is applicable at present that Charcot made a half century ago, namely, that the medical man was contented with finding small fragments of knowledge, but the psychiatrist insisted upon making such a comprehensive attack that he accomplished nothing.

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It would seem wholly reasonable to establish in one or two places in this country, and in some other countries that are reasonably ready for it, laboratories in which the purpose would be definitely the study of such problems in psychiatry as can be attacked by reasonably exact methods only, excluding the more speculative methods. This would have in mind two objects, (1) to secure knowledge, (2) to displace from dominance the inexact, diffuse, or speculative method and viewpoint, and to develop a group of men trained in the other method, as has been done in the study of the more directly physical aspects of disease.

To accomplish this point it would seem wise, in these institutes, to minimize the interest in the more intangible aspects of psychiatry; in

order that there be centers of thought and training where precise methods are the controlling factors and where disciples with that viewpoint will grow up. This was successfully done in Medicine. It will be more difficult to Psychiatry. What is now intangible is the ultimate aim, and it is not intended to argue that the methods of material science are the sole source to look to for future progress, but there are ways enough open to keep such institutes very busy and if tangible things can be made clear, bit by bit, each step will make the approach to the intangible clearer. A generation ago many things seemed comparably obscure and intangible in Internal Medicine. In many cases now they can be diagnosed, studied, and treated by simple means and by the use of the reason rather than the methods of exact science, but exact methods blazed the trail in the right direction and often opened a large field for the use of simpler methods of less exact character.

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There are already various broad lines of study likely to yield, sooner or later, information of great importance in psychiatry. Others will develop, of course, as these are further used, and they will open the way to others.

The structure of the brain, for example, is known in great part, but there is a vast amount unknown regarding the function of the details of structure and general physiological problems pertaining to the brain - its circulation, nutrition, etc., and the factors that influence them. It is reasonable to think that many things will remain obscure until we know much more about the organ in which the mental processes take place.

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Ways have been opened also by Pavlov and Cannon to develop much

more widely the precise knowledge of the relation between the physical and mental and the influence of ordinary factors in life, such as habit, repeated stimulation, emotion, etc., upon them.

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Extension of such lines of study, and cautious application of them to pathological states, can scarcely fail to yield dependable knowledge, important in psychiatry, in the course of time.

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More direct methods and more rapid results of practical value seem wholly possible by other methods. In manic-depressive insanity it is reasonable to think that there is, in some cases at any rate, a tangible disturbance of the organism that causes the waves of improvement and recurrence (something perhaps vaguely analagous to what has been shown in pernicious anemia, which has a clinical course that reminds one in some ways of manic depressive insanity). The disease is perhaps metabolic in character rather than a purely mental thing. Similarly, in some cases of dementia praecox, studies of metabolism seem to offer hope. There are lines of study of particular items that might perhaps be broadened out to be of such general significance. For example, the way that carbon dioxide affects cataleptic cases and the manner in which they may be brought out of their condition almost completely, temporarily, by making them respire an excess of carbon dioxide. The mental effects of carbon monoxide poisoning suggest experiments on animals with carbon monoxide to determine more accurately its manner of action upon the nervous system. In syphilitic and other forms of insanity the technical methods of studying infection and immunity are used already and can well be extended further.

All such methods as those mentioned require very highly trained personnel, whose time is almost entirely devoted to this. They also require extensive equipment, adequate numbers of well trained assistants and technicians, time-consuming studies, with freedom from much routine in teaching and hospital work. They cannot be done successfully by those who do practice.

No psychiatric departments in this country are adequately equipped for this as to personnel or other facilities, and few have the viewpoint that would lead them to be greatly interested in it. The only psychiatric organization anywhere that I am aware of, where such things can be and are being done as an outstanding purpose, is the Kraepelin Institute in Munich. The functions of the brain are, however, being ably studied, in a general way that is important to psychiatry, in several physiological institutes or neurological institutes abroad and in two or three places in this country.

Should such psychiatric organizations as are mentioned be developed, it would seem wise to have them where there are each year a considerable group of medical students who would be influenced by the atmosphere, and to place them in great centers of general clinical training that are largely frequented by the profession for advanced training or for casual visits. The influence upon students and practitioners was highly important in altering the viewpoint in General Medicine, and a somewhat isolated institute would not have this effect.

It would seem well also to have it associated not merely with adequate psychiatric material, freely available for study, but also with the clinics of Internal Medicine and Pediatrics, and the relation with these latter should be extremely close and active. Two reasons appear to

make this important, (1) many of the most important things to study are borderline conditions that are found especially in medical and pediatric clinics rather than in psychiatric clinics, (2) medical students and practitioners as a group are most influenced by what they find to be the interest of the general medical clinic. They have usually only a collateral interest in the subjects designated as separate specialties. They greatly need to have more knowledge of and more interest in borderline or actual psychiatric states and they are much more likely to get this, and carry it away with them, if there is active interest in it in the medical and children's clinics. The same thing is, of course, true of the hospital internes and staff, and of the advanced workers and graduate students and medical visitors. In these two ways it appears to me that the admirable Kraepelin Institute, although wholly deserving of aid if aid proves to be needed in further developments, might be improved upon elsewhere. I found it somewhat difficult to learn just where it was, and difficult to reach when that was learned, in that it was isolated and required a special journey away from the general medical interests and institutions.

The primary limitations in developing such institutes is proper personnel. Even the Kraepelin, with its prestige, cannot find suitable men for one or two important lines that they feel should be studied. In this country, at present, one or two would seem to be all that could be operated successfully until disciples had been trained. If started they should be started on lines sufficiently generous to care for several primary men, working in diverse lines, on adequate salaries, with adequate numbers of properly paid assistants and technicians, and equipment for studies that are necessarily rather expensive.

It would seem wholly desirable that in institutes of this kind, as indicated above, the speculative methods should be, in large part, excluded. This is not merely a personal opinion. I have found this to be strongly in the minds of men like Spielmayer and Plaut at the Kraepelin Institute and some other men with fine training in and a progressive conception of psychiatry. There can be no question that psycho-analysis, for example, in good hands has done and will do a great deal of good to the individual. There does not seem, however, any way in which it can be at present accurately studied from a scientific standpoint; but it is rather a method of personal gift and skill, and any active interest in such work in such an institute would seem to have an element of real danger. It is so fascinating in its breadth of human relations, and immediate prospect of aid to the individual, that it has a strong emotional appeal to many able young men, and I have known of a number of men highly trained in science who began activities in psychiatry but, through the fascination of psycho-analysis, gave up their scientific training practically entirely for the more immediate human returns of psycho-analysis. The people at the Kraepelin Institute seemed to feel the same danger very strongly.

Equally it seems wise that in the psychological or sociological aspects of psychiatry a good deal of restraint should be exercised. They likewise are rather romantic and appealing lines, but of such breadth, and with such a lack of precise methods of attack at present, that there is a strong chance that they would simply confuse the issue and divert men away from the more exact methods, unless there is a sharp and critical attitude toward the line of study that is taken up within

such subjects and in the character of the personnel that do it.

I should feel it would be unfortunate to establish large departments or divisions related to psychology or sociology, etc., and rather that if the proper personnel and proper problems appear provision should be made for giving opportunity to such personnel to carry out the plan of work, not in a separate division or department but in distinct cooperation with those engaged upon the main problems at issue.

The success of what it appears to me should be in view is likely to depend upon patiently and determinedly adhering to exact and measurable methods, whatever line they may be in. There are two methods not distinctly medical that appear to be capable of valuable use at present, namely, study of the economic side of the question and statistical study, partly economic and partly related to the character of and features of actual psychiatric disorders; this having been extremely inadequately done as yet.

I would again repeat that the question of personnel will be the very pressing one, even in attempting to start one or two institutes. Kraepelin advocated that no line of work should be started unless a thoroughly adequate individual is available. If we adhered to this viewpoint probably very little would start, because no personnel of precisely the right kind can be found in most of the lines in view; but it seems quite possible to get reasonably adequate personnel, in part men already interested in psychiatry or engaged in it and in part through physiology or other departments where able men could be led to develop their interests into lines of this sort. There are, I believe,

considerable numbers of very able young men in recent years who have become highly interested in psychiatry and, at the same time, in precise science, and there seems very little doubt that, once such institutes were started and properly conducted for a few years, there would be adequate numbers of able men of the proper type, training and ability for such lines of work. At present such men mostly go into other forms of clinical investigation, often I think with regret, because they cannot find sympathy and facilities for such studies in psychiatry, or suitable guidance in their developmental period.